

Expression of Interest EOI

Part 1 – General Details

EOI ID	866		
EOI Title: (max 80 char)	Viability of domestic cotton textile production		
Type of Research	Knowledge creation		
Proposed Start Date:	1/01/2026	Proposed End Date:	30/06/2026
CRDC Pillar	3. Planet		
CRDC Theme	3.3 Circular economy		
CRDC Outcome	3.3.2 By 2028, logistic and economic opportunities to add value to the cotton circular economy are identified, quantified, and implemented where appropriate		
FRP Due Date	31/07/2025		

Part 2 – Expression of Interest Requirements

Issue to be addressed and project description:

Australia is one of the world's largest producers of high-quality cotton, yet there is currently no domestic textile spinning capacity, with all cotton fibre exported for offshore value-adding. The closure of Australia's last spinning mills in the early 2000s reflected the high cost of labour and energy, outdated technologies, and the lack of economies of scale. These issues have so far been assumed to continue to make domestic cotton textile production unviable. However, significant shifts have occurred since then. Emerging technologies in textile spinning, the decentralisation and reduction of energy costs through renewables (particularly solar and bioenergy), and advances in textile recycling now present an opportunity to re-evaluate the feasibility of local cotton textile production.

This project will undertake a comprehensive viability assessment for the re-establishment of domestic cotton textile spinning and early-stage processing capacity in Australia. The assessment will consider the economic, technological, and environmental factors required to make such a facility viable. It will explore advancements in modular and automated spinning technologies, energy integration using renewable sources and biochar co-products, and the potential for integrating recycled fibre streams to reduce input costs and enhance sustainability credentials.

A key component of the project will be spatial analysis to identify optimal facility locations, using criteria such as access to renewable energy sources, proximity to raw cotton supply and logistics infrastructure, regional workforce considerations, and the potential for co-location with other circular economy initiatives. The study will also consult with industry stakeholders across the cotton, manufacturing, and recycling sectors to ensure practical relevance and alignment with commercial interests and market demand.

By building a detailed techno-economic model, this project aims to provide an evidence base for future investment and policy support, and to identify whether Australia's cotton sector can move beyond fibre export to domestic value-adding through low-impact, circular textile production.

Expected project outputs and outcomes:

This project will deliver a clear and evidence-based view of whether domestic cotton textile production is economically and environmentally feasible in Australia, and if so, where it should be located and what conditions are required for success.

Outputs:

- A techno-economic feasibility report including cost models, technology mapping, and comparative analysis with offshore production.
- A location analysis identifying the most viable regions for facility establishment based on energy, fibre supply, and infrastructure.
- Recommendations for next steps, including potential pilot-scale investment or demonstration opportunities.

Outcomes:

- Increased clarity for industry and policymakers on investment potential in domestic textile manufacturing.
- A pathway for regional economic development through high-value processing of Australian cotton.
- Insights into circular economy opportunities through integration with textile recycling and bioenergy systems.

Project Investment:

Year	2025/26	TOTAL
Indicative budget (up to)	\$150,000.00	\$150,000.00

Part 3 – Selection Criteria

The following selection criteria will be used by the CRDC to assess the full research proposals (FRPs) received for each Expression of Interest.

The rationale of the project, how it will support CRDC's Strategic Plan and the potential impacts for the Australian cotton industry and the Australian community.

This criterion will be assessed on the soundness of the proposal's understanding of the issues, and the extent to which the project outcomes will address the issues and support CRDC to achieve its measures of success.

Project methodology.

This criterion will be assessed on the soundness and clarity of the proposed R&D methods to achieve project deliverables and outcomes.

The skills and capacity of the research team to undertake the project.

This criterion will be assessed on the track record, technical knowledge and experience of all key personnel in the research area and the demonstrated capacity of the nominated researcher/s to provide project coordination, management, monitoring and evaluation for the timely delivery of high quality outputs.

The proposed 'Pathway to Impact'.

This criterion will be assessed on the appropriateness of the proposed 'Pathway to Impact' and the demonstrated capacity of the project personnel to effectively translate research/project outcomes to on ground actions. Please include the target audience and process for extension/ communication/ commercialisation (as appropriate), as well as any collaboration partners and potential risks. Note that successful FRPs may be requested to develop specific milestones for delivery of project outcomes in collaboration with CottonInfo or CRDC Commercialisation Manager at the outset of the project.

Proposed collaborations for the project and / or the collaborative networks of the project team.

This criterion will be assessed on the demonstrated ability of the project personnel to form productive networks to build on national and international research already undertaken in related areas.

How this project is cost effective for the Australian cotton industry, including details of the resources being brought to the project.

(This criterion will be assessed on the cost effectiveness of this project including cash and in-kind commitments from the applicants and leverage through domestic or international linkages. Budget including descriptive text will also be assessed as part of this criterion. Max 2,000 character limit including spaces)

To apply, [follow this process](#). For further information, contact the CRDC Innovation Administration team on 02 6792 4088 or via research@crdc.com.au.

This EOI is not a guarantee of funding.